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CABINET AFFAIRS STAFFING MEMORANDUM

Date: 3/16/84 Number: 168940CA Due By:

Subject: Cabinet Council on Natural Resources and Environment Meeting

Monday, March 19, 1984 - 3:00 p.m. - Roosevelt Room

ALL CABINET MEMBERS	Action	FYI		Action	FYI
Vice President	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CEA	<input checked="" type="checkbox"/>	<input type="checkbox"/>
State	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CEQ	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Treasury	<input checked="" type="checkbox"/>	<input type="checkbox"/>	OSTP	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Defense	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Attorney General	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Interior	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Agriculture	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Baker	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Commerce	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Deaver	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Labor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Darman (For WH Staffing)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HHS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Jenkins	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HUD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	McFarlane	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Transportation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Svahn	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Energy	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Education	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Counsellor	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
OMB	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
CIA	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
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OPM	<input type="checkbox"/>	<input type="checkbox"/>	CCFA/	<input type="checkbox"/>	<input type="checkbox"/>
VA	<input type="checkbox"/>	<input type="checkbox"/>	CCHR/Simmons	<input type="checkbox"/>	<input type="checkbox"/>
SBA	<input type="checkbox"/>	<input type="checkbox"/>	CCLP/Uhlmann	<input type="checkbox"/>	<input type="checkbox"/>
			CCMA/Bledsoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			CCNRE/	<input checked="" type="checkbox"/>	<input type="checkbox"/>

REMARKS:

The Cabinet Council on Natural Resources and Environment will meet on Monday, March 19, 1984 at 3:00 p.m. in the Roosevelt Room to discuss the National Energy Policy Perspective. The background paper is attached.

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EXEC  
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RETURN TO:

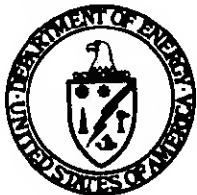
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THE SECRETARY OF ENERGY  
WASHINGTON, D.C. 20585

March 16, 1984

MEMORANDUM

TO: CABINET COUNCIL ON NATURAL RESOURCES AND ENVIRONMENT

FROM: DON HODEL *Don Hodel*  
SECRETARY OF ENERGY

SUBJECT: NATIONAL ENERGY POLICY PERSPECTIVE

In October 1983, President Reagan submitted to the Congress the National Energy Policy Plan IV (NEPP). That document spelled out this Administration's energy policy. Our policy has a goal, and two strategies to achieve that goal, together providing a framework and focus for the full range of federal energy programs. The goal is "to foster an adequate supply of energy at reasonable costs." To realize that goal, NEPP identifies strategies:

1. To minimize federal control and intervention in energy markets while maintaining public health and safety and environmental quality; and,
2. To promote a balanced and mixed energy resource system.

By minimizing government intervention in the market place and reducing other impediments to effective market operation, our policies have encouraged a more productive, flexible and diversified energy supply system. As a result, domestic energy production has been increased, imports of insecure supplies of oil have been reduced, productivity has improved, energy prices have moderated, and a more reliable, less vulnerable energy system has emerged. In addition, our policy of focusing government research efforts on basic research and development of promising technologies that are either too risky or too far in the future to attract adequate private resources will help ensure a diversified and efficient supply system to meet distant needs.

We seek a balanced and mixed energy resource base ranging from essential conventional sources such as oil, gas, coal, and nuclear, to renewables such as hydro-electricity, solar, wind, geothermal, and biofuels. We have placed new emphasis on energy efficiency and conservation which we consider to be critical energy resources.

Our efforts to promote this balanced and mixed resource base and to minimize federal control and intervention in energy markets have guided our actions in all energy resource areas. The following outlines some of our efforts and indicates the significance and status of the various energy resource industries in the U.S.

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### ELECTRIC POWER

Although there is substantial disagreement and uncertainty concerning future electricity demand growth, most current forecasts project that the demand for electricity is likely to grow by about 2.5 to 3 percent per year between now and the end of the century. With these levels of demand growth, additional generating capacity -- perhaps as much as 300 to 400 gigawatts (GWe) -- will be needed by the year 2000. (Current generating capacity is just under 600 GWe.)

Electricity will continue to maintain a favorable competitive position vis-a-vis other energy sources and will likely continue to increase its share of the energy market.

Coal and nuclear are the primary options for meeting future demands for electricity. Oil and gas are too expensive and domestic supplies of these fuels are more limited. Hydro, wind, geothermal and other renewables can make important contributions in certain regions but not on the same scale or in the same time frame as coal and nuclear.

Coal is the leading fuel for the production of electric power, accounting for nearly 55 percent of the total in 1983, followed by hydroelectric power (14 percent), nuclear power (13 percent), gas (12 percent), and petroleum (6 percent). Other sources, including geothermal and wood waste, account for less than 1 percent of electric power generation.

### COAL

Coal accounts for over 85 percent of U.S. recoverable fossil fuel reserves (excluding more distant fuels such as oil shale and tarsands). About 785 million tons of coal were produced in the U.S. in 1983, and total 1984 production is projected to increase by 9 percent to a record 853 million tons. Yet, coal provides only about 20 percent of our energy consumption.

The United States has about 70 percent of the coal reserves held by the four principal coal exporting countries (the others are Australia, Poland, and South Africa). Although exports are down from the 1981 high of over 110 million tons, to just below 80 million tons exported in 1983, this is up from an average of 60 million tons in the 1970s. A slight recovery for coal exports is projected in 1984, and this recovery could continue through the first half of 1985.

Administration policies that are improving the Nation's coal future include:

- o Revitalization of the federal coal leasing program;
- o Reform of surface mining regulations;
- o Those increases in the DOE coal research and development budget directed principally at technologies that permit coal to be burned with minimal environmental impact, such as coal preparation, fluidized bed combustion, improved scrubbers, and new forms of coal burning and coal-water slurries;
- o Increased funding for acid rain related research and restoration of damaged lakes, totalling \$127.5 million in fiscal year 1985.
- o Support for terminal and port expansions to facilitate coal exports.

#### NUCLEAR

In 1983, nuclear power produced 13 percent of our electrical generation. It is projected to provide more than 18 percent of U.S. electricity in the early 1990s, surpassed only by coal.

There are now more than 80 commercial nuclear power plants licensed to operate in the U.S.; the electrical energy they produced in 1983 was equivalent to 1.4 million barrels of oil per day. An additional 40+ nuclear plants are licensed for construction.

In the world arena, nuclear provides a significant percentage of installed capacity. In 1983, 11 percent of the world's energy was produced by nuclear power plants. France used nuclear for over 39 percent of its generated electricity; by 1990, they expect to use nuclear for nearly 70 percent. Japan, with 20 percent of its electricity provided by nuclear in 1983, expects this to rise to 35 percent by 1995.

The United States generates the most electricity by nuclear powerplants in the world, followed by France, Japan, and the Soviet Union. We also have the greatest number of commercially operating reactors, followed by the U.S.S.R. with 40, the United Kingdom with 32, France with 30, and Japan with 25.

The nuclear power industry in the U.S. has been plagued with power plant cancellations, delays, and regulatory-related problems in recent years. Since 1972, over 100 commercial nuclear plants have been cancelled.

There is no "quick fix" for the problems confronting our nuclear industry. However, nuclear power is, and must continue to be, an important component of this Nation's balanced and mixed energy system. Even at the lower levels of electricity demand

growth being projected today, substantial levels of new generation capacity will be required over the remainder of this century. It is imperative that the nuclear option be available to help meet projected additional electric generation capacity needs.

Without a healthy nuclear industry, the U.S. will not be able to sell services and equipment on the international market and will be less able to further our Nation's nonproliferation goals. Furthermore, if other countries can use nuclear power at costs that are less than U.S. electrical costs, their energy intensive industries will be more able to undercut U.S. industries in the world markets.

The primary problems facing the domestic nuclear power industry are the lengthening schedules for plant licensing and construction (currently 12-14 years) and the associated uncertainty in plant costs and difficulty in financing. These problems are exacerbated by an increasingly skeptical public and a media oriented toward highlighting the failed promises of nuclear power.

In March 1983, the Administration proposed the Nuclear Licensing and Regulatory Reform bill, designed to improve safety of nuclear power plants, improve public participation in the licensing process, and provide a more stable and predictable regulatory process for existing and future plants. Passage of the bill would reduce reactor completion time by about 5 years, comparable with construction timeframes of other nations.

Additionally, the Administration has:

- o Proposed a new contract for U.S. provision of uranium enrichment services, designed to price our services more competitively in order to recapture portions of the lost world market and to conduct this activity more like a commercial operation;
- o Moved effectively to implement the Nuclear Waste Policy Act of 1982, with identification of nine potentially acceptable sites within six States for the first repository -- slated to begin accepting commercial waste by January 31, 1998; and,
- o Focused our research and development budget on light water reactor safety research, reactor design technology, and breeder reactor development.

As a general rule, we have not adequately addressed the problems of public perception of nuclear power. Given the key role that the nuclear option must play in this Nation's energy future, it is important that public information be provided in a balanced manner to assure reasoned, far-sighted public policy decisions concerning this key energy technology.

## RENEWABLES AND CONSERVATION

The National Energy Policy recognizes the importance of conservation and renewable energy to a balanced and mixed energy resource system.

In 1983, renewable energy sources provided nearly 8.5 percent of the primary energy needs of this country and projections indicate renewables will contribute over 9 percent to the energy mix by the year 1992 and over 10 percent by the year 2000.

The cost of solar photovoltaic-generated electricity has decreased by 57 percent from 1980 to 1983. In wind energy, the number of small companies producing wind machines has more than doubled in the last three years. Approximately 4,000 wind systems with a total capacity of 120 megawatts are currently in operation in the U.S., compared to less than 500 systems in 1980.

The number of FERC permits issued for hydropower site development increased by 200 percent from 1980 to 1983, and geothermally produced electricity in the U.S. increased 37 percent in the same period. Alcohol fuels production capacity has increased forty-fold in the last six years, from 10 million gallons to 400 million gallons a year.

Energy conservation must be viewed and managed as a resource. Significant strides in energy efficiency and productivity have been made in the past several years. Residential and commercial buildings in the U.S. today consume 20 percent less energy per square foot than they did 10 years ago. Energy consumption per dollar of gross national product has declined by 12 percent from 1980 through the third quarter of 1983. Energy consumption per capita decreased by 13 percent in the last 10 years, and energy input per unit of industrial output has fallen by 23 percent.

The Department of Energy has initiated an aggressive program to transfer energy efficiency technology, developed in DOE's basic and applied research program, to the consumer and the private sector. The Department is also forming high-tech partnerships with industry to channel research to the most productive efforts.

## NATURAL GAS

Of the 3 quadrillion cubic feet of natural gas reserves in the world, over 50 percent is owned by two countries -- the U.S.S.R. (41 percent) and Iran (16 percent). The U.S. ranks third with 7 percent. In 1983, the U.S. produced approximately 15.9 trillion cubic feet (Tcf), and consumed about 17.0 Tcf. The primary sources of imported natural gas in 1983 were Canada, Mexico, and Algeria.

The price constraints imposed on natural gas by the Natural Gas Policy Act of 1978 so skew the market that they inhibit domestic production (primarily lower-cost gas) while keeping average delivered prices somewhat above free market levels.

Recent studies indicate that somewhere between 1 and 3 years of natural gas supply is easily available at low cost. But that gas will not make it to market because the NGPA, with its 28 pricing categories, fixes its price below the cost of recovery.

In March 1983, the Administration proposed legislation to decontrol natural gas at the wellhead. The essential features of that proposal were: 1) deregulation of all gas by a date certain; 2) rationalization of existing contracts; and, 3) consumer protection. The reform legislation is stalled in the Congress. Prospects in this session for a comprehensive natural gas bill are less favorable than they were late in the last session. In the Senate, Energy Committee Chairman McClure continues to work with ten other Senators of both parties in an attempt to reach a compromise. In the House, the Energy Committee has not scheduled additional hearings. The Administration must continue to press for comprehensive reform legislation.

### OIL

The single most critical energy issue is the vulnerability of the world energy market to a disruption of oil supplies.

As of December 31, 1982, there were 28 billion barrels of estimated proven crude oil reserves in the U.S. This is only 4 percent of known world petroleum reserves. However, estimates of undiscovered recoverable resources range from 64 to 105 billion barrels, providing a total of at least 30 years of production at current rates.

U.S. consumption of oil is down 11 percent compared to 1980 levels, responding to a combination of economic factors, including price incentives to shift to alternative fuels, permanent conservation and lowered economic activity. Concurrently, oil production in the U.S. was higher than expected due to the President's decontrol order in January 1981. Consequently, our oil imports, which provide the marginal barrel, are down 33 percent. However, we still import about 28 percent of our net oil requirements, a level that requires our continued attention, to both levels and sources of our supplies.

In 1983, OPEC provided 43 percent of U.S. net oil imports, down from over 70 percent in 1977. Of additional importance, we have diversified our suppliers. In 1983, the top five countries from which we imported oil were Mexico, Canada, Venezuela, United Kingdom, and Saudi Arabia, in that order.

While the United States is in much better condition today than 10 years ago, the Middle East will remain an important future supplier. About 55 percent of the world's proven oil reserves are in the Persian Gulf, with about 25 percent, roughly 165 billion barrels, in Saudi Arabia alone. Western European countries range from 20 to 40 percent dependence on the Gulf for oil; Japan depends on the Gulf for nearly 55 percent of its oil needs.

Administration actions related to our domestic oil supply include:

- o On January 28, 1981, President Reagan by executive order decontrolled the price of petroleum in the U.S. There were assertions at that time that decontrol would lead to \$2 per gallon gasoline. In fact, the average price for gasoline in 1983 was \$1.22 per gallon. After adjusting for inflation, regular gas in 1983 was priced 20 percent lower than in 1980, in spite of the 5¢ per gallon tax instituted in April 1983.
- o President Reagan is committed to filling and maintaining the Strategic Petroleum Reserve. As of March 1984, total stocks in the SPR were 387 million barrels, up from 110 million barrels in January 1981. At this level, the SPR could provide more than 90 days supply of our 1983 net imports.
- o Substantial headway has been made in interagency planning to ensure rapid and efficient federal response to a broad range of disruption scenarios.

#### OUTSTANDING ISSUES

President Reagan's energy policy makes sense and has set the right course for energy programs and Administration decisions on energy issues. Besides natural gas decontrol and nuclear licensing reform, among the issues with a direct impact on our energy system still confronting the Administration are:

- o Energy Taxes
- o International commitments under the International Energy Program
- o Synfuels
- o Oil company mergers
- o Energy Tax Credits
- o Alaskan Oil Exports